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(FILE 'HOME' ENTERED AT 15:38:04 ON 20 MAY 2004)
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FILE 'REGISTRY' ENTERED AT 15:38:29 ON 20 MAY 2004
          STRUCTURE UPLOADED
         0 S L1
          STRUCTURE UPLOADED
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1 S L3 L4L5 76 S L3 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:41:05 ON 20 MAY 2004 4 S L5 L6

FILE 'MARPAT' ENTERED AT 15:42:28 ON 20 MAY 2004

2 S L5 L7 78 S L5 SSS FULL L876 S L8/COMPLETE L9 74 S L9 NOT L6 L10 L11 0 S L10 AND CYCLOOXYGENASE?

0 S L10 AND COX L12

FILE 'CAPLUS' ENTERED AT 15:45:52 ON 20 MAY 2004

L13 74 S L10 1 S L13 AND CYCLOOXYGENASE L14 1 S L13 AND COX L15 1 S L15 NOT L14 L16 L17 12795 S PYRROLO? L18 4 S L13 AND L17

=> d 13 L3 HAS NO ANSWERS

L3 STR

G1 C,S

G2 C,N

=> d 1-4 bib abs hitstr

ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

2000:316965 CAPLUS AN

DN 132:334446

Preparation of amide group-containing indoles and mono- or diazaindoles as TI cyclooxygenase-2 inhibitors and anti-inflammatory agents

Matsuoka, Koji; Takahashi, Tadakatsu; Maruyama, Tensho; Ishizawa, IN Takenobu; Kato, Yasuharu

PA Chugai Pharmaceutical Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 29 pp. SO CODEN: JKXXAF

Patent-

LA Japanese

FAN CNT-I

os

PATENT NO. KIND DATE APPLICATION NO. DATE JP 2000136182 A2 20000516 JP 1998-310209 19981030 19981030 PRAI JP 1998-310209 MARPAT 132:334446

$$\begin{array}{c|c} R^{1}-SO_{2} & A^{1} \\ & & \\ & & \\ A^{2} & N \\ & & \\ & & \\ CH_{2}R^{2} & I \end{array}$$

The compds. I [A1, A2 = CH, N; R = C:QNYZ, CO2R3; R1 = alkyl, amino; R2 = AB (un) substituted aryl, (un) substituted cycloalkyl, (un) substituted heterocyclyl; Q = O, S, N:CN; Y, Z = H, (un) substituted alkyl, (un) substituted alkoxy, (un) substituted cycloalkyl, (un) substituted aryl, (un) substituted heterocyclyl; YNZ may form (un) substituted ring (having addnl. O, N, and/or S)], their pharmacol. acceptable salts, or their hydrates are prepared Me 1-benzenesulfonyl-5-methylthio-1H-pyrrolo[2,3b]pyridine-2-carboxylate was oxidized, treated with 4-fluorobenzyl bromide, and amidated with NMeH2 to give I (A1 = CH, A2 = N; R = CONHMe, R1 = Me, R2 4-FC6H4), which inhibited human cyclooxygenase-1 and 2 with IC50 of >20 and 0.4 μM , resp. IT

268212-01-7P 268212-02-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of indoles as cyclooxygenase-2 inhibitors and anti-inflammatory agents)

RN 268212-01-7 CAPLUS

Pyrrolidine, 1-[[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]carbonyl]- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & \\ \hline \\ N & \\ \hline \\ O & \\ \end{array}$$

$$R - C - N$$

RN 268212-02-8 CAPLUS

Morpholine, 4-[[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-CN yl]carbonyl] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & O & O \\ \hline Me^{-S} & C & N \\ \hline O & N - CH_2 \\ \hline \end{array}$$

IT 268212-27-7P 268212-28-8P 268212-30-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of indoles as cyclooxygenase-2 inhibitors and anti-inflammatory agents)

RN 268212-27-7 CAPLUS

CN Pyrrolidine, 1-[[5-(methylthio)-1-(phenylsulfonyl)-1H-indol-2-yl]carbonyl](9CI) (CA INDEX NAME)

RN 268212-28-8 CAPLUS

CN Pyrrolidine, 1-[[5-(methylsulfonyl)-1-(phenylsulfonyl)-1H-indol-2-yl]carbonyl]- (9CI) (CA INDEX NAME)

RN 268212-30-2 CAPLUS

CN Thiomorpholine, 4-[[5-(methylthio)-1-(phenylsulfonyl)-1H-indol-2yl]carbonyl]- (9CI) (CA INDEX NAME)

- L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:764033 CAPLUS
- DN 132:12319
- TI Preparation of heterocyclic indole derivatives and mono- or diazaindole derivatives as cyclooxygenase-2 (COX-2) inhibitors
- IN Matsuoka, Hiroharu; Kato, Nobuaki; Takahashi, Tadakatsu; Maruyama, Noriaki; Ishizawa, Takenori; Suzuki, Yukio
- PA Chugai Seiyaku Kabushiki Kaisha, Japan
- SO PCT Int. Appl., 106 pp.
- CODEN: PIXXD2

DT Patent

pub am

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LA
     Japanese
FAN.CNT 1
     PATENT NO.
                                            APPLICATION NO.
                      KIND
                            DATE
                                            WO 1999-JP2718
                                                              19990525
                            19991202
PI
     WO 9961436
                       A1
         W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU,
                         IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO,
             ID, IL, IN,
             NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM,
                         KZ, MD, RU,
             AZ, BY,
                     KG,
                                     TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE,
                                             SN, TD, TG
     AU 9938511
                       A1
                            19991213
                                            AU 1999-38511
                                            EP 1999-921245
                                                              19990525
     EP 1086950
                            20010328
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     US 6673797
                       В1
                             20040106
                                            US 2000-701188
                                                              20001127
                             20040408
                                            US 2003-674488
                                                              20031001
     US 2004067964
                       A1
PRAI JP 1998-143957
                             19980526
                       Α
     JP 1998-323553
                             19981113
     WO 1999-JP2718
                             19990525
     US 2000-701188
                       АЗ
                             20001127
OS
     MARPAT 132:12319
GI .
R202S
                    (CH<sub>2</sub>)<sub>n</sub>-
                                 Ι
     Indole derivs. and mono- or diazaindole derivs. represented by general
AB
     formula (I; wherein Het represents an optionally substituted heterocycle;
     Al and A2 independently represent each CH or N; A3 represents CH2, CO, or
     SO2; R1 represents 4-fluorophenyl, 5-methyl-4H-1,2,4-triazol-3-yl,
     5-methylpyridin-2-yl, 4-methylpiperazin-1-yl, cyclohexyl, pyridin-2-yl,
     3,4-dichlorophenyl, 2,4-difluorophenyl, or Q; wherein A4 = O, S, or NH; R2
     represents linear or branched C1-3 alkyl; and n is 0, 1 or 2, provided
     that when A1 and A2 are both CH, then A3 is CH2 or SO2), pharmaceutically
     acceptable acid-addition salts or base-addition salts thereof or hydrates of the
     same, which have a COX-2 inhibitory activity and are useful as drugs such
     as anti-inflammatory agents, are prepared Thus, 2-(2-furyl)-5-
     (methanesulfonyl)-1H-pyrrolo[2,3-b]pyridine (preparation given) was stirred
     with NaH in DMF at 0° for 30 min and then stirred with
     4-fluorobenzyl bromide for 1 h to give the title compound (II).
     IC50 of 0.15 and >20 \mu M against COX-2 and COX-1, resp.
IT
     251548-34-2P 251548-35-3P 251548-36-4P
     251548-37-5P 251548-38-6P 251548-39-7P
     251548-40-0P 251548-41-1P 251548-42-2P
     251548-43-3P 251548-44-4P 251548-45-5P
     251548-46-6P 251548-47-7P 251548-48-8P
     251548-49-9P 251548-50-2P 251548-51-3P
     251548-52-4P 251548-53-5P 251548-54-6P
     251548-55-7P 251548-57-9P 251548-58-0P
     251548-59-1P 251548-60-4P 251548-61-5P
     251548-62-6P 251548-63-7P 251548-64-8P
     251548-65-9P 251548-66-0P 251548-67-1P
     251548-68-2P 251548-69-3P 251548-70-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
```

as cyclooxygenase-2 (COX-2) inhibitors and anti-inflammatory agents) 251548-34-2 CAPLUS 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-2-(2-furanyl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

BIOL (Biological study); PREP (Preparation); USES (Uses)

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

(preparation of heterocyclic indole derivs. and mono- or diazaindole derivs.

RN 251548-35-3 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(2-thiazolyl)- (9CI) (CA INDEX NAME)

RN 251548-36-4 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(2-oxazolyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 251548-37-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(1,3,4-oxadiazol-2-yl)- (9CI) (CA INDEX NAME)

RN 251548-38-6 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2(2-pyridinyl)- (9CI) (CA INDEX NAME)

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RN 251548-39-7 CAPLUS CN 1H-Pyrrolo[2,3-b]pyridine, 1-{(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-

(2-pyrimidinyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & \\ N & & N \\ \hline \\ O & & N \\ \hline \\ O & & N \\ \hline \\ O & & N \\ \hline \end{array}$$

RN 251548-40-0 CAPLUS

1H-Pyrrolo[2,3-b]pyridine, 1-(cyclohexylmethyl)-5-(methylsulfonyl)-2-(2-pyrimidinyl)- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & & \\ \parallel & & & \\ N & & & \\ \hline O & & & \\ N & & & \\ \end{array}$$

RN251548-41-1 CAPLUS

1H-Indole, 1-[(4-fluorophenyl)methyl]-2-(2-furanyl)-5-(methylsulfonyl)-CN(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & & \\ Me-S & & & & \\ O & & & N-CH_2 \end{array}$$

RN251548-42-2 CAPLUS

CN 1H-Indole, 1-(cyclohexylmethyl)-2-(2-furanyl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & \\ \hline \\ Me-S & & \\ \hline \\ O & & N-CH_2 \\ \hline \end{array}$$

RN

251548-43-3 CAPLUS
1H-Pyrrolo[2,3-b]pyridine, 2-(2-furanyl)-5-(methylsulfonyl)-1-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & \\ \hline \\ N & & \\ \hline \\ O & & \\ N & & \\ \end{array}$$

$$\mathbb{R}$$

RN 251548-44-4 CAPLUS

N 1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-2-(5-methyl-2-furanyl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-45-5 CAPLUS

CN 1H-Pyrrolo[2,3-b]pyridine, 1-(cyclohexylmethyl)-2-(2-furanyl)-5(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-46-6 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(tetrahydro-2-furanyl)- (9CI) (CA INDEX NAME)

RN 251548-47-7 CAPLUS

CN 1H-Indole, 2-(3,6-dihydro-2H-pyran-4-yl)-1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-48-8 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)

RN 251548-49-9 CAPLUS

3-Pyridinecarboxylic acid, 6-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & & \\ \hline \\ Me^{-S} & & & \\ \hline \\ O & & N-CH_2 \end{array}$$

251548-50-2 CAPLUS RN

3-Pyridinecarboxamide, 6-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]-N-methyl- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & \\ \hline Me-S & & \\ \hline O & & N-CH_2 \end{array}$$

RN

251548-51-3 CAPLUS
1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(3-CN pyridinylmethyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c} 0 \\ \parallel \\ 0 \\ 0 \\ \end{array}$$

RN ` 251548-52-4 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(3-pyridinyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & \\ \hline \\ Me^{-S} & & \\ \hline \\ O & & N-CH_2 \end{array}$$

RN 251548-53-5 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(1-oxido-3-pyridinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & \\ \parallel & & \\ N - CH_2 & & \\ \end{array}$$

RN 251548-54-6 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)sulfonyl]-5-(methylsulfonyl)-2-(2-thiazolyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & & \\ N & & & & \\ N & & & & \\ O & & & & \\ O & & & & \\ \end{array}$$

RN 251548-55-7 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(5-methyl-1H-1,2,4-triazol-3-yl)- (9CI) (CA INDEX NAME)

RN 251548-57-9 CAPLUS

CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-2-(3-methyl-1,2,4-oxadiazol-5-yl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-58-0 CAPLUS CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-2-(5-methyl-1,2,4-oxadiazol-3-yl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-59-1 CAPLUS
CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & \\ \parallel & & \\ \hline N & CH_2 \end{array}$$

RN 251548-60-4 CAPLUS
CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(1-oxido-2-pyridinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & \\ \parallel & & & \\ Me-S & & & \\ 0 & & & N-CH_2 \end{array}$$

RN 251548-61-5 CAPLUS
CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(2-thiazolylmethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 251548-62-6 CAPLUS

3-Pyridinecarboxamide, 6-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-pyrrolo[2,3-b]pyridin-2-yl]-N-methyl- (9CI) (CA INDEX NAME)

$$Me^{-S}$$

$$0$$

$$N - CH_2$$

RN 251548-63-7 CAPLUS

CN 2-Furancarboxylic acid, 5-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)lH-indol-2-yl]- (9CI) (CA INDEX NAME)

$$CO_2H$$
 O
 Me^-S
 O
 N
 CH_2

RN 251548-64-8 CAPLUS

CN 2-Furancarboxylic acid, 5-[[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]methyl]- (9CI) (CA INDEX NAME)

RN 251548-65-9 CAPLUS

'CN 1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(4-pyridinyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ Me-S \\ O \\ N-CH_2 \end{array}$$

RN 251548-66-0 CAPLUS

1H-Indole, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-2-(1-oxido-4-CNpyridinyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & \\ \parallel & & \\ N-CH_2 & & \\ \end{array}$$

RN 251548-67-1 CAPLUS

5H-Pyrrolo[2,3-b]pyrazine, 5-[(4-fluorophenyl)methyl]-2-(methylsulfonyl)-6-(2-thiazolyl)- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} O & & & \\ \parallel & & & \\ N & & & \\ O & & & \\ N & & & \\ \end{array}$$

251548-68-2 CAPLUS RN

5H-Pyrrolo[2,3-b]pyrazine, 5-[(4-fluorophenyl)methyl]-2-(methylsulfonyl)-6-CN(2-oxazolyl) - (9CI) (CA INDEX NAME)

$$Me^{-S} \bigvee_{N}^{N} \bigvee_{N-CH_2}^{N} F$$

RN251548-69-3 CAPLUS

1H-Pyrrolo[2,3-b]pyridine, 1-[(4-fluorophenyl)methyl]-2-(5-fluoro-4-pyrimidinyl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN

251548-70-6 CAPLUS
5H-Pyrrolo[2,3-b]pyrazine, 5-[(2,4-difluorophenyl)methyl]-2-CN (methylsulfonyl)-6-(1,3,4-oxadiazol-2-yl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & N & N \\ \parallel & N & N \\ \hline O & N & N \\ \hline O & N & CH_2 \\ \hline \end{array}$$

251548-71-7P 251548-72-8P 251548-76-2P IT 251548-77-3P 251548-79-5P 251548-80-8P 251548-82-0P 251548-83-1P 251548-85-3P 251548-86-4P 251548-88-6P 251548-89-7P 251548-99-9P 251549-00-5P 251549-02-7P 251549-04-9P 251549-05-0P 251549-06-1P 251549-08-3P 251549-09-4P 251549-10-7P 251549-11-8P 251549-12-9P 251549-20-9P 251549-21-0P 251549-22-1P 251549-25-4P 251549-26-5P 251549-27-6P 251549-28-7P 251549-30-1P 251549-51-6P 251549-52-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of heterocyclic indole derivs. and mono- or diazaindole derivs. as cyclooxygenase-2 (COX-2) inhibitors and anti-inflammatory agents) RN 251548-71-7 CAPLUS CN 1H-Pyrrolo[2,3-b]pyridine, 2-(2-furanyl)-5-(methylthio)-1-(phenylsulfonyl)-(9CI) (CA INDEX NAME)

RN 251548-72-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 2-(2-furanyl)-5-(methylsulfonyl)-1-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-76-2 CAPLUS CN 1H-Indole, 5-(methylthio)-1-(phenylsulfonyl)-2-(2-thiazolyl)- (9CI) (CA INDEX NAME)

RN 251548-77-3 CAPLUS CN 1H-Indole, 5-(methylsulfonyl)-1-(phenylsulfonyl)-2-(2-thiazolyl)- (9CI) (CA INDEX NAME)

0 | S - Ph

RN 251548-79-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 5-(methylthio)-2-(2-oxazolyl)-1-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-80-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 5-(methylsulfonyl)-2-(2-oxazolyl)-1(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251548-82-0 CAPLUS CN 1H-Indole, 5-(methylthio)-2-(1,3,4-oxadiazol-2-yl)-1-(phenylsulfonyl)-(9CI) (CA INDEX NAME)

RN 251548-83-1 CAPLUS CN 1H-Indole, 5-(methylsulfonyl)-2-(1,3,4-oxadiazol-2-yl)-1-(phenylsulfonyl)-(9CI) (CA INDEX NAME)

RN

251548-85-3 CAPLUS 1H-Pyrrolo[2,3-b]pyridine, 5-(methylthio)-1-(phenylsulfonyl)-2-(2-CNpyridinyl) - (9CI) (CA INDEX NAME)

RN251548-86-4 CAPLUS

1H-Pyrrolo[2,3-b]pyridine, 5-(methylsulfonyl)-1-(phenylsulfonyl)-2-(2-pyridinyl)- (9CI) (CA INDEX NAME) CN

251548-88-6 CAPLUS
1H-Pyrrolo[2,3-b]pyridine, 5-(methylthio)-1-(phenylsulfonyl)-2-(2-pyrimidinyl)- (9CI) (CA INDEX NAME) CN

RN 251548-89-7 CAPLUS

1H-Pyrrolo[2,3-b]pyridine, 5-(methylsulfonyl)-1-(phenylsulfonyl)-2-(2-pyrimidinyl)- (9CI) (CA INDEX NAME) CN

RN 251548-99-9 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 2-(5-methyl-2-furanyl)-5-(methylthio)-1-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251549-00-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine, 2-(5-methyl-2-furanyl)-5-(methylsulfonyl)-1(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251549-02-7 CAPLUS
CN 1H-Indole, 5-(methylsulfonyl)-1-(phenylsulfonyl)-2-(tetrahydro-2-furanyl)(9CI) (CA INDEX NAME)

RN 251549-04-9 CAPLUS
CN 1H-Indole, 5-(methylthio)-1-(phenylsulfonyl)-2-(tetrahydro-4-hydroxy-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

RN 251549-05-0 CAPLUS
CN 1H-Indole, 2-(3,6-dihydro-2H-pyran-4-yl)-5-(methylthio)-1-(phenylsulfonyl)(9CI) (CA INDEX NAME)

RN 251549-06-1 CAPLUS CN 1H-Indole, 2-(3,6-dihydro-2H-pyran-4-yl)-5-(methylsulfonyl)-1-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

RN 251549-08-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 6-[5-(methylsulfonyl)-1-(phenylsulfonyl)-1Hindol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 251549-09-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 6-[1-[(4-fluorophenyl)methyl]-5(methylsulfonyl)-1H-indol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} 0 \\ \parallel \\ \text{Me}-S \\ \parallel \\ 0 \\ \text{N}-\text{CH}_2 \\ \end{array}$$

RN 251549-10-7 CAPLUS
CN 1H-Indole-2-methanol, 5-(methylthio)-1-(phenylsulfonyl)-α-3pyridinyl- (9CI) (CA INDEX NAME)

RN 251549-11-8 CAPLUS
CN Methanone, [1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]-3pyridinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
0 \\
Me^{-S} \\
0 \\
N - CH_2
\end{array}$$

RN 251549-12-9 CAPLUS CN 1H-Indole, 5-(methylsulfonyl)-1-(phenylsulfonyl)-2-(3-pyridinyl)- (9CI) (CA INDEX NAME)

RN 251549-20-9 CAPLUS CN 1H-Indole-2-methanol, 1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)- α -2-thiazolyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & OH \\ \hline Me^{-S} & OH \\ \hline O & CH \\ \hline N & CH_2 \\ \hline \end{array}$$

RN 251549-21-0 CAPLUS

CN Methanone, [1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]-2-thiazolyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & O & S \\ \hline O & C & N \\ \hline O & N & CH_2 \\ \hline \end{array}$$

RN 251549-22-1 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-[5-(methylthio)-1-(phenylsulfonyl)-1H-indol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 251549-25-4 CAPLUS

CN 2-Furancarboxylic acid, 5-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-indol-2-yl]-; ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & \\ \parallel & & & \\ N-CH_2 & & \\ \end{array}$$

RN 251549-26-5 CAPLUS

CN 2-Furancarboxylic acid, 5-[hydroxy[5-(methylthio)-1-(phenylsulfonyl)-1H-indol-2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN251549-27-6 CAPLUS

2-Furancarboxylic acid, 5-[[5-(methylthio)-1-(phenylsulfonyl)-1H-indol-2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME) CN

RN 251549-28-7 CAPLUS

2-Furancarboxylic acid, 5-[[5-(methylsulfonyl)-1-(phenylsulfonyl)-1H-indol-CN 2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 251549-30-1 CAPLUS

2-Furancarboxylic acid, 5-[[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-CN 1H-indol-2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & O & O \\ \hline \\ O & O & CH_2 \\ \hline \\ O & O & CH_2 \\ \hline \\ O &$$

RN CN

251549-51-6 CAPLUS 4(3H)-Pyrimidinone, 5-fluoro-6-[1-[(4-fluorophenyl)methyl]-5-(methylsulfonyl)-1H-pyrrolo[2,3-b)pyridin-2-yl]-2,5-dihydro- (9CI)

$$Me = S$$

$$O$$

$$N$$

$$N$$

$$R$$

$$CH_2$$

$$F$$

$$NH$$

RN 251549-52-7 CAPLUS

1H-Pyrrolo[2,3-b]pyridine, 2-(6-chloro-5-fluoro-4-pyrimidinyl)-1-[(4-CN fluorophenyl)methyl]-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ N \end{array}$$

$$\begin{array}{c|c} O \\ N \end{array}$$

$$\begin{array}{c|c} R \\ N \end{array}$$

$$\begin{array}{c|c} CH_2 \end{array}$$

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:94720 CAPLUS

DN 120:94720

Substituted thiopyrano[2,3,4-c,d]indoles as potent, selective, and orally TI active inhibitors of 5-lipoxygenase. Synthesis and biological evaluation of L-691,816

ΑU Hutchinson, J. H.; Riendeau, D.; Brideau, C.; Chan, C.; Delorme, D.; Denis, D.; Falgueyret, J. P.; Fortin, R.; Guay, J.; et al.

CS Merck Frosst Cent. Theor. Res., Pointe Claire-Dorval, QC, H9R 4P8, Can.

Journal of Medicinal Chemistry (1993), 36(19), 2771-87

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal English

LΑ GI

Ph
$$CH_2O$$
 $CH_2CMe_2CH_2$ N $N-N$ CH_2 CH_2

Thiopyrano[2,3,4-c,d]indoles are a new class of 5-lipoxygenase (5-LO) inhibitors. SAR studies have demonstrated that the thiopyran ring, the 5-phenylpyridine substituent, and an acidic functional group on a four-carbon C-2 side chain are all required for optimal inhibitor potency. In contrast, the indolic nitrogen may be substituted with a variety of

lipophilic groups. As a result of the SAR investigation, L-691,816 (I) has been identified as a potent inhibitor fo the 5-LO reaction both in vitro and in a range of in vivo models. I inhibits 5-HPETE production by both rat and human 5-LO and LTB4 synthesis in human PMN leukocytes (IC50s 16, 75, and 10 nM, resp.). The mechanism of inhibition of 5-LO activity by I appears to involve the formation of a reversible deadend complex with the enzyme and does not involve reduction of the nonheme iron of 5-LO. I is highly selective for 5-LO when compared to the inhibition of human FLAP, porcine 12-LO, and also ram seminal vesicle cyclooxygenase. In addition, I is orally active in a rat pleurisy model (inhibition of LTB4, ED50 = 1.9 mg/kg; 8 h pretreatment) as well as in the hyperreactive rat model of antigen-induced dyspnea (ED50=0.1 mg/kg; 2-h pretreatment). Excellent functional activity was also observed in both the conscious allergic monkey and sheep models of asthma. In the latter case, the functional activity observed correlated with the inhibition of urinary LTE4 excretion.

150461-16-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and lipoxygenase inhibiting activity of, structure in relation to)

RN

1H-Thiopyrano[2,3,4-cd]indole, 1-[(4-chlorophenyl)methyl]-2-[2,2-dimethyl-3-(1H-tetrazol-5-yl)propyl]-4,5-dihydro-4-methyl-6-[[(5-phenyl-2pyridinyl)methyl]thio] - (9CI) (CA INDEX NAME)

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ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
L6
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AN 1993:495502 CAPLUS

DN 119:95502

ΤI Thiopyrano[2,3,4-c,d] indoles as inhibitors of leukotriene biosynthesis Hutchinson, John H.; Girard, Yves; Fortin, Rejean; MacDonald, Dwight; Scheigetz, John; Delorme, Daniel; Therien, Michel; Hamel, Pierre

Merck Frosst Canada Inc., Can. PΑ

so Eur. Pat. Appl., 116 pp.

CODEN: EPXXDW

DTPatent

English LΑ

FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 518426 R: CH, DE,	A1	19921216 , IT, LI, NL	EP 1992-201639	19920605
	US 5202321 CA 2070953	A AA	19930413 19921214	US 1991-714478 CA 1992-2070953	19910613 19920610
PRAT	JP 06287192 US 1991-714478	A2	19941011 19910613	JP 1992-155112	19920615
OS GI	MARPAT 119:9550	2	19910013		÷

$$^{\text{Y}}$$
 $^{\text{Qp}}$
 $^{\text{Qp}}$

Over 200 title compds. I [R1 = H, alkyl, cycloalkyl, alkoxy, cyano, NO2, CF3, N3, N(R6)2, COR7, OR6, SR8, CO2R9, halo, etc.; R2 = H, alkyl, OH, alkoxy; or R2R2 = bond; R3 = H, alkyl; or R2R3 = O; R4 = H, AB (un) substituted alkyl, cycloalkyl, (phenyl) alkenyl, (un) substituted aryl; R5 = (un)substituted alkyl, cycloalkyl, (un)substituted aryl, substituted tetrahydropyridyl; R6 = H, alkyl; or NR6R6 = saturated (hetero)cyclic amino possibly containing addnl. O, S, or NR2; R7 = H, alkyl, Ph, p-MeC6H4, CF3; R8 = alkyl, Ph, p-MeC6H4, CF3; R9 = H, alkyl, PhCH2; Q = CO2R9, tetrazolyl, OH, CH2OH, CHO, CON(R6)2, N(R6)2, NHCOR7, CONHCN, etc.; W = CH2, CO, SO2 (when R4 \neq H); X = (CH2)qU, U(CH2)q, CH:CH, CH2OCH2; Y = CH2C(R10)2, CH:CR10, CH:CHCH2, (CH2)3; Z = bond, O, S, (un)substituted NH or CONH; U = CH2, O, S; R10 = H, alkyl; m = 0-3; n = 0-3 when Z = bond; n = 1-3 when Z = bond= others; p = 0-2; q = 0-3} were prepared and/or claimed. I are inhibitors of leukotriene biosynthesis, useful for treatment of a variety of medical conditions (no data). For example, cyclization of Me3CSCH2COCH2CMe2CO2Me with 4-MeOC6H4N(NH2)CH2C6H4Cl-4.HCl gave Me 3-[1-(4-chlorobenzyl)-3-tertbutylthio-5-methoxyindol-2-yl]-2,2-dimethylpropanoate. This underwent saponification, O-demethylation of the Me ether, reesterification with CH2N2, O-alkylation with allyl bromide, rearrangement/cyclization, further O-alkylation, and saponification, to give title compound II.

IT 147936-34-3P 150461-16-8P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as leukotriene biosynthesis inhibitor)

RN 147936-34-3 CAPLUS
CN 1H-Thiopyrano[2,3,4-

1H-Thiopyrano[2,3,4-cd]indole, 1-[(4-chlorophenyl)methyl]-2-[2,2-dimethyl-3-(1H-tetrazol-5-yl)propyl]-4,5-dihydro-4-methyl-6-[(5-phenyl-2-pyridinyl)thio]- (9CI) (CA INDEX NAME)

3-(1H-tetrazol-5-yl)propyl]-4,5-dihydro-4-methyl-6-[[(5-phenyl-2-pyridinyl)methyl]thio]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

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=> d bib abs
L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
      2003:356182 CAPLUS
AN
DN
      138:348759
      Indolylquinolinone derivative tyrosine kinase inhibitors, preparation
ΤI
      thereof, and therapeutic use
IN
     Arrington, Kenneth L.; Fraley, Mark E.; Hartman, George D.
PΑ
     Merck & Co., Inc., USA
SO
     PCT Int. Appl., 82 pp.
      CODEN: PIXXD2
DT
      Patent
     English
LΑ
FAN. CNT 1
      PATENT NO.
                        KIND DATE
                                               APPLICATION NO. DATE
PΙ
     WO 2003037252
                        A2
                               20030508
                                               WO 2002-US34379 20021025
                         A3
     WO 2003037252
                               20040219
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
              LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
              UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
              NE, SN, TD, TG
PRAI US 2001-339075P
                               20011030
     MARPAT 138:348759
os
AB
     The invention provides indolylquinolinone compds. which inhibit, regulate,
     and/or modulate tyrosine kinase signal transduction, compns. which contain
      these compds., and methods of using them to treat tyrosine
      kinase-dependent diseases and conditions, such as angiogenesis, cancer,
     tumor growth, atherosclerosis, age-related macular degeneration, diabetic
     retinopathy, inflammatory diseases, and the like in mammals. Preparation of
     selected compds. is described.
=> s 113 and cox
         13654 COX
              1 L13 AND COX
=> s 115 not 114
L16
              1 L15 NOT L14
=> d bib abs
L16
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ΔN
     2003:242278 CAPLUS
DN
     138:271682
     Preparation of cyclic hydroxamic acids as inhibitors of matrix
     metalloproteinases and/or TNF-\alpha converting enzyme for treatment of
     inflammatory disorders
IN
     Ott, Gregory; Chen, Xiao-Tao; Duan, Jingwu; Lu, Zhonghui
     Bristol-Myers Squibb Company, USA
PA
SO
     PCT Int. Appl., 344 pp.
     CODEN: PIXXD2
DТ
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                               APPLICATION NO. DATE
                       ----
                              ------
                                               ______
                       A2
     WO 2003024899
                              20030327
                                               WO 2002-US29685 20020916
     WO 2003024899
                              20031127
                        A3
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
              PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
         RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
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PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,

US 2002-244626

20020916

NE, SN, TD, TG

Δ1

20030724

US 2003139388

PRAI US 2001-322630P P 20010917 OS MARPAT 138:271682 GI

$$\begin{array}{c|c} & & & & \\ & &$$

AB Title compds. I [wherein ring B = (un) substituted 4-7 membered (hetero)cyclic ring containing 0-2 O, N, NR1, or SOp atoms and 0-3 carbonyl groups; R1 and R2 = independently Q, alk(en/yn)ylene-Q, or (un)substituted alkylene-Q interrupted by O, NRa, CO, CO2, CONRa, NRaCO, NRaCO2, NRaCONRa, SOp, NRaSO2, or SO2NRa; or R1 = (un)substituted alkylene-Q interrupted by OCO, OCO2, or OCONRa; Q = H or (un)substituted (hetero)cyclyl; R3 = Q1, Cl, F, alk(en/yn)ylene-Q1, or (un)substituted alkylene-Q1 interrupted by O, NR1, NRaCO, CONRa, CO, CO2, SOp, or SO2NRa; Q1 = H or (un)substituted Ph, naphthyl, or heterocyclyl; Za = (un)substituted benzimidazolyl, indolyl, imidazopyridinyl, pyrazolylpyridinyl, benzofuranyl,
benzothiazinyl, quinolinyl, etc.; Ra = independently H, alkyl, Ph, or benzyl; p = 0-2; or stereoisomers or pharmaceutically acceptable salts thereof] were prepared as inhibitors of matrix metalloproteinases (MMP), TNF-a converting enzyme (TACE), aggrecanase, or a combination thereof. For example, reaction of benzyl Me maleate with paraformaldehyde and glycine gave benzyl Me (cis)-3,4-pyrrolidinedicarboxlyate (100%). BOC-protection (64%), debenzylation (96%), resolution of the (3S,4S)-isomer with (S)- α -methylbenzylamine, conversion to the carbamate with DPPA and PhCH2OH (76%), and Pd catalyzed hydrogenation (100%) provided Me (3S,4S)-4-amino-1-(tert-butoxycarbonyl)-3-pyrrolidinecarboxylate. Coupling of the amine with 4-[(2-methylthio-1H-benzimidazol-1yl)methyl]benzoic acid (preparation given) afforded the amide (99%), which was treated with NH2OH•HCl/MeONa to give the hydroxamic acid (3S,4S)-II (33%). A number of the compds. of the invention inhibited MMP-1, 2, 3, 7, 8, 9, 10, 12, 13, 14, 15, and/or 16 with Ki values of \leq 10 μ M. Thus, I are useful for the treatment of a wide variety of inflammatory disorders (no data).

II

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=> s pyrrolo?
L17 12795 PYRROLO?
=> s l13 and l17
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WO 2002016348

4 L13 AND L17

=> d 1-4 bib abs

L18

ΡI

ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN L18 2002:157760 CAPLUS AN DN 136:200111 TI Preparation of antiangiogenic indoles or azaindoles Hennequin, Laurent François Andre PA Astrazeneca AB, Swed.; Astrazeneca UK Limited SO PCT Int. Appl., 99 pp. CODEN: PIXXD2 DŤ Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO.

20020228

WO 2001-GB3585

20010808

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AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2001077621
                       A5
                            20020304
                                           AU 2001-77621
                                                             20010808
PRAI EP 2000-402256
                       Α
                            20000809
     WO 2001-GB3585
                       W
                            20010808
     MARPAT 136:200111
GI
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$$\begin{bmatrix} Z & G^2 \\ & & & \\$$

AB The title compds. [I; ring C = 5-6 membered heteroarom. ring containing at least one N atom and optionally containing a further 1-2 heteroatoms, selected from O, S and N; either any one of G1-G5 = N and the other four = CH, or all G1-G5 = CH; Z = O, NH, S, CH2, or a direct bond; Z is linked to any one of G1-G4; n = 0-5; any of the substituents R1 may be attached at any free carbon atom of the indole, azaindole or indazole group; m = 0-4; Rb = H, alkyl, alkoxyalkyl, etc.; R1 = H, oxo, OH, etc.; R2 = H, OH, halo, etc.], useful in the manufacture of a medicament for the production of an antiangiogenic and/or vascular permeability reducing effect in warm-blooded animals, were prepared and formulated. Thus, reacting 5-hydroxy-2-methylindole with 2-chloro-5-trifluoromethylpyridine in the presence of NaH in DMF afforded 49% 2-(2-methylindol-5-yloxy)-5-trifluoromethylpyridine. The compds. I inhibit the effects of VEGF, a property of value in the treatment of a number of disease states including cancer and rheumatoid arthritis.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
     2002:122993 CAPLUS
AN
DN
     136:167381
TI
     Preparation of cinnoline compounds having antiangiogenic and/or vascular
     permeability reducing effect
IN
     Hennequin, Laurent Francois Andre
     Astrazeneca AB, Swed.; Astrazeneca UK Limited .
PA
SO
     PCT Int. Appl., 123 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO.
     WO 2002012228
                        A1
                             20020214
                                             WO 2001-GB3533
                                                                20010807
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             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,
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             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
                                                                     TD, TG
     AU 2001076521
                             20020218
                       A5
                                             AU 2001-76521
                                                                20010807
     EP 1309587
                        A1
                             20030514
                                             EP 2001-954175
                                                                20010807
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     BR 2001013057
                             20030708
                                             BR 2001-13057
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JP 2004505966
                                             JP 2002-518203
                        Т2
                             20040226
                                                               20010807
     US 2003212055
                             20031113
                                             US 2003-333592
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                        A1
     NO 2003000624
                        Α
                             20030407
                                             NO 2003-624
                                                               20030207
PRAI EP 2000-402255
                             20000809
                        Α
     WO 2001-GB3533
                             20010807
OS
     MARPAT 136:167381
GI
```

$$Z \xrightarrow{G^{2}} G^{1} \xrightarrow{R?} G^{5}$$

$$Z \xrightarrow{G^{3}} G^{4} \xrightarrow{R?} (R^{1})_{n}$$

$$R?$$

$$R?$$

AB The invention relates to compds. of the formula [I; either any one of G1, G2, G3, G4 and G5 is nitrogen and the other four are CH, or G1, G2, G3, G4 and G5 are all CH; Z is O, NH, S, CH2 or a direct bond; Z is linked to any one of G1, G2, G3 and G4 which is a free carbon atom; n is an integer from 0 to 5; any of the substituents R1 may be attached at any free carbon atom of the indole, azaindole or indazole group, such free carbon atoms may be G1, G2, G3, G4 or G5 or may be at the 3-position of the indole, azaindole or indazole group; m = an integer of 0 to 3; Ra = H; Rb = H, C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, amino-C1-4 alkyl, C1-3 alkylamino-C1-4 alkyl, di(C1-3 alkyl)amino-C1-4 alkyl, C2-5 alkenylamino-C1-4 alkyl, C2-5 alkynylamino-C1-4 alkyl, or -C1-5 alkyl(ring A) (wherein ring A = optionally substituted azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholino, or thiomorpholino); R1 = H, oxo, hydroxy, halogeno, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-C1-4 alkyl, amino-C1-4 alkyl, C1-3 alkylamino-C1-4 alkyl, di(C1-3 alkyl) amino-C1-4 alkyl, -C1-5alkyl-(ring B) (wherein ring B = azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, N-methylpiperazinyl, N-ethylpiperazinyl, morpholino, or thiomorpholino);
R2 = H, OH, halogeno, cyano, NO2, CF3, Cl-3 alkyl, Cl-3 alkoxy, Cl-3
alkylsulfanyl, NR3R4 (wherein R3, R4 = H or Cl-3alkyl), etc.] and salts
thereof, processes for the preparation of such compds. Also disclosed are pharmaceutical compns. containing a compound of formula I or a pharmaceutically acceptable salt thereof as active ingredient and the use of a compound of formula I in the manufacture of medicament for the production of an antiangiogenic and/or vascular permeability reducing effect in warm-blooded animals. The compds. of formula I and the pharmaceutically acceptable salts thereof inhibit the effects of vascular endothelial growth factor (VEGF), a property of value in the treatment of a number of disease states including cancer and rheumatoid arthritis (no data). Thus, a suspension of 4-chloro-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]cinnoline 60, 4-fluoro-5-hydroxy-2-methylindole 46, and cesium carbonate 121 mg in DMA (2 mL) was heated at 100° for 2 h to give 4-(4-fluoro-2-methylindol-5-yloxy)-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]cinnoline (32 mg, 38%). T 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 1

ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
2002:122992 CAPLUS
ΑN
```

DN 136:167380

ТI Preparation of phthalazines and thienopyrimidines as vascular endothelial growth factor inhibitors.

TN Hennequin, Laurent François Andre

Astrazeneca AB, Swed.; Astrazeneca UK Limited PA

SO PCT Int. Appl., 108 pp.

CODEN: PIXXD2

DTPatent

LΑ English

ran.cni i																		
	PA	PENT	NO.		KI	ND :	DATE			A	PPLI	CATI	ON N	ο.	DATE			
										-								
PI	WO	2002	0122	27	A	2	2002	0214		W	20	01-G	B356	1	2001	8080		
	WO	2002	0122	27	A3 20020801													
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
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			GM,	HR,	ΗU,	ID,	ΙL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,
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L18 AN

DN

TI

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RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
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     BR 2001013078
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     JP 2004505965
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                               20031106
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                                                                   20030130
     NO 2003000628
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                                               NO 2003-628
                         Α
                                                                   20030207
PRAI EP 2000-402257
                               20000809
                         Α
     WO 2001-GB3561
                         W
                               20010808
os
     MARPAT 136:167380
GI
```

$$(R^2)_{mQZ} \xrightarrow{G^2} G^1 \xrightarrow{R^3}_{N} G^5$$

$$(R^1)_{n} \qquad I$$

2002:122991 CAPLUS

136:183717

AB Title compds. [I; Q = 9-10 membered bicyclic heteroaryl containing ≥1 N atom in the ring attached to Z and optionally containing a further 1-3 0, S, N, with the proviso that Q is not a quinazoline, quinoline or cinnoline ring; either any 1 of G1-G5 = N and the other 4 = CH, or G1-G5 all = CH; Z = 0, NH, S; m = 0-2; n = 0-5; R3 = H, alkyl, alkoxyalkyl, aminoalkyl, alkenylaminoalkyl, etc.; R1 = H, OH, halo, alkyl, alkoxy, aminoalkyl, etc.; R2 = H, OH, halo, cyano, NO2, CF3, alkyl, alkoxy, alkylsulfanyl, NR3R4, etc.; R3, R4 = H, alkyl}, were prepared as angiogenesis inhibitors and for reducing vascular permeability (no data). Thus, 1-chloro-4-(4-pyridylmethyl)phthalazine, 4-fluoro-5-hydroxyindole (preparation given), and Cs2CO3 in DMF were heated at 95° for 2 h to give 22% 1-(4-fluoroindol-5-yloxy)-4-(4-pyridylmethyl)phthalazine.

Preparation of quinoline derivatives having VEGF inhibiting activity

ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

```
IN
     Hennequin, Laurent François Andre
PΑ
     Astrazeneca AB, Swed.; Astrazeneca UK Limited
     PCT Int. Appl., 129 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                             DATE
                                            APPLICATION NO.
                                                             DATE
PΙ
     WO 2002012226
                             20020214
                                                             20010808
                       A1
                                            WO 2001-GB3553
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                                          BY, KG, KZ, MD, RU, TJ, TM
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                                         IE, IT, LU, MC, NL, PT, SE,
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             BJ, CF, CG, CI, CM, GA,
                                     GN,
                                          GQ, GW, ML, MR, NE, SN, TD,
                                                                      TG
     AU 2001076536
                       A5
                            20020218
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     EP 1313726
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                                            EP 2001-954192
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     BR 2001013056
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                                                             20010808
     JP 2004505964
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     US 2003199491
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                                            US 2003-332274
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     NO 2003000625
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                                            NO 2003-625
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PRAI EP 2000-402254
                       Α
                             20000809
     WO 2001-GB3553
                             20010808
                       W
os
    MARPAT 136:183717
GI
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$$(R^2)_{m}$$

$$R^{2}$$

$$R^{2}$$

$$R^{3}$$

$$R^{2}$$

$$R^{3}$$

$$R^{2}$$

$$R^{3}$$

$$R^{2}$$

The invention relates to I (e.g. 6-cyano-7-[3-(1,1dioxothiomorpholino)propoxy]-4-(indol-5-ylamino)quinoline hydrochloride (1)) wherein: either any one of G1, G2, G3, G4 and G5 is N and the other four are -CH-, or G1, G2, G3, G4 and G5 are all -CH-; Z is -O-, -NH-, -S-, -CH2- or a direct bond; Z is linked to any one of G1, G2, G3 and G4; n is an integer from 0 to 5; m is an integer from 0 to 3; Ra represents H or fluoro; Rb, R1 and R2 are defined herein and salt thereof, process for the preparation of such compds., pharmaceutical compns. containing ${\tt I}$ or a pharmaceutically acceptable salt thereof as active ingredient and the use of I in the manufacture of a medicament for the production of an antiangiogenic and/or vascular permeability reducing effect in warm-blooded animals. I and the pharmaceutically acceptable salts thereof inhibit the effects of VEGF, a property of value in the treatment of a number of diseases states including cancer and rheumatoid arthritis. Thirty-five example prepns. are included. For example, a solution of 4-chloro-6-cyano-7-[3-(1,1dioxothiomorpholino)propoxy]quinoline (0.21 mmol) and 5-aminoindole (0.25 mmol) in 2-pentanol (2.5 mL) containing 6.2 N HCl in isopropanol (40 μ l) was heated at 120 °C for 3 h; after cooling, the solid was collected by filtration, washed with isopropanol followed by ether and dried under vacuum to give 1 (90 %). Pharmacol. test procedures are described but test results for the claimed compds. are not given.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 15:38:04 ON 20 MAY 2004)
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FILE 'REGISTRY' ENTERED AT 15:38:29 ON 20 MAY 2004
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L1
L2
              0 S L1
                STRUCTURE UPLOADED
L3
L4
              1 S L3
             76 S L3 SSS FULL
L5
     FILE 'CAPLUS' ENTERED AT 15:41:05 ON 20 MAY 2004
L6
              4 S L5
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             2 S L5
L7
             78 S L5 SSS FULL
L8
L9
             76 S L8/COMPLETE
             74 S L9 NOT L6
L10
              0 S L10 AND CYCLOOXYGENASE?
Lll
              0 S L10 AND COX
L12
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L13.
             1 S L13 AND CYCLOOXYGENASE
L14
              1 S L13 AND COX
L15
L16
              1 S L15 NOT L14
          12795 S PYRROLO?
L17
L18
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             70 S L13 NOT L18
L19
L20
             75 S L9 NOT L14
L21
             69 S L19 NOT L14
             68 S L21 NOT L15
L22
             31 S L22 AND INFLAMMA?
L23
              8 S L23 AND PYRID?
L24
=> d 13
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L3 HAS NO ANSWERS

L3 STR

G1 C,S G2 C,N

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1.24
     ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
     2004:2876 CAPLUS
AN
     140:59522
     Preparation of indole derivatives as histamine H3 antagonists
ΤI
IN
     Aslanian, Robert G.; Berlin, Michael Y.; Mangiaracina, Pietro; McCormick,
     Kevin D.; Mutahi, Mwangi W.; Rosenblum, Stuart B.
PΑ
     Schering Corporation, USA
     PCT Int. Appl., 62 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO.
                                                             DATE
PΙ
     WO 2004000831
                       A1
                            20031231
                                           WO 2003-US19619
                                                             20030620
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             ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD,
             MG, MK, MN, MX, MZ, NI, NO, NZ, PG, PH, PL, PT, RO, RU, SC,
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                                         TJ, TM
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             NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD,
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                            20040129
     US 2004019099
                       A1
                                            US 2003-600674
                                                             20030620
PRAI US 2002-390987P
                            20020624
     MARPAT 140:59522
os
GI
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$$(R^{12})_{m}$$
 $(R^{13})_{m}$ $(R^{$

AB Title compds. I [wherein R1 = (un) substituted indolyl or an aza derivative thereof; R2 = (un) substituted (hetero) aryl, quinolyl, heterocycloalkyl; R12, R13 = alkyl, hydroxyl, alkoxy, etc., or R13 = 0; m = independently 0-3; n = 1-3; p = 1-3; q = 1-5; X = a bond or alkylene; Y = C0, CS, COCH2, etc.; Z = a bond, alkylene, alkenylene, CO, etc.; M1 = CH or N; M2 = CR3 or N; and salts or solvates thereof] were prepared as histamine H3 antagonists in treatment of H3 receptor related diseases. For example, reaction of II with 3-(4-piperidinyl)-2-(2-pyridinyl)indole, followed by deprotection and substitution with 2-chloromethylpyridine gave III, which showed 1.50 nM binding constant with histamine H3. Thus, I and their pharmaceutical compds., as well as in combination with H1 receptor antagonists, are useful as histamine H3 antagonists for the treatment of inflammatory diseases, allergic conditions and central nervous system disorders (no data).

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:551516 CAPLUS

DN 139:117268

TI Preparation of deazapurines for use in pharmaceutical compositions for the treatment of inflammatory, autoimmune and proliferative diseases

IN Daun, Jane; Davis, Heather A.; Gusovsky, Fabian; Hishinuma, Ieharu; Jiang, Yimin; Kaneko, Toshihiko; Kikuchi, Kouichi; Kobayashi, Seiichi; os

GI

os

MARPAT 135:357843

MARPAT 139:117268

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Lescarbeau, Andre; Li, Xiang-Li; Muramoto, Kenzo; Ohi, Norihito; Pesant,
    Marc; Seletsky, Boris M.; Soejima, Motohiko; Yao, Ye; Yokohama, Hiromitsu;
     Zhao, Janet Y.; Zheng, Wanjun; Tremblay, Lynda
     Eisai Co., Ltd., Japan
    PCT Int. Appl., 215 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
    PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO. DATE
PΙ
    WO 2003057696
                       A1
                            20030717
                                           WO 2003-US366
                                                            20030107
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
                                                                     TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
             ML, MR, NE, SN, TD,
                                TG
PRAI US 2002-346598P
                            20020107
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Indolyldeazapurines, such as I [R1 = H, NH2, alkylamino, acylamino, etc.;
R2 = H, amino, alkoxy, alkyl, etc.; R3 = H, CN, halogen, heteroaryl, AB amino, carbamoyl, etc.], were prepared for therapeutic use as inhibitors of cell adhesion, mol. expression and inflammatory cytokine signal transduction. These deazapurines are useful in the treatment of inflammatory, autoimmune, proliferative, central nervous system and cardiovascular diseases, such as rheumatoid arthritis, ulcerative colitis, multiple sclerosis, asthma, psoriasis, allograft rejection/graft vs. host disease, idiopathic thrombocytopenia, allergic rhinitis, atopic dermatitis, systemic lupus, glomerulonephritis, diabetes, ulcerative colitis/Crohn's disease, erythematosus, eczema, urticaria, myasthenia gravis, idiopathic thrombocytopenia purpura and cancer. Thus, deazapurine II was prepared via a coupling reaction of the corresponding halodeazapurine with 2-(tributylstannyl)-1H-indole-1-carboxylic acid 1,1-dimethylethyl The prepared deazapurines were assayed for cellular cytokine ester. inhibition using human umbilical vein endothelial cells (HUVEC).

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
L24
     2001:817246 CAPLUS
ΔN
DN
     135:357843
     Preparation of 2-Aryl indole derivatives for use as tachykinin receptor
     antagonists
    Dinnell, Kevin; Elliott, Jason Matthew; Hollingworth, Gregory John;
IN
     Ridgill, Mark Peter; Shaw, Duncan Edward
PΆ
     U.S. Pat. Appl. Publ., 37 pp.
SO
     CODEN: USXXCO
DT
     Patent
T.A
     English
FAN.CNT 1
     PATENT NO.
                       KIND
                            DATE
                                            APPLICATION NO.
     US 2001039286
                            20011108
                       A1
                                            US 2001-782422
                                                              20010213
PRAI GB 2000-3397
                       Α
                            20000214
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$$\begin{array}{c|c}
x \\
R^4 \\
\hline
 & R^4 \\
\hline
 & R^6 R^5 \\
\hline
 & R^1? \\
\hline
 & R^2 \\
\hline
 & R^2$$
I

AB 2-Aryl indole derivs. I (wherein Rla, Rlb, and R2 = a variety of substituents; R3 = optionally substituted Ph, biphenyl or naphthyl or heteroaryl group; R4 = H, (C1-6)alkyl, carbonyl (=O), (CH2)pphenyl or a (C1-2) alkylene bridge across the piperidine ring; R5 and R6 = variety of substituents; or R5 and R6 together are linked so as to form an optionally substituted 5-or 6-membered ring; X = 0 or S, two H atoms, boxHNH or boxHN(C1-6 alkyl); Y = straight or branched (C1-4)alkylene, (C2-4)alkenylene or (C2-4)alkynylene chain; the dotted line represents an optional double bond; m = 0,1,2,3,4; n = 1,2,3,4; and p = 1,2,3,4), or a pharmaceutically acceptable salt thereof, were prepared, and their use as tachykinin receptor antagonists evaluated. Thus, disopropylethylamine and bromoacetonitrile were added to a loaded resin (synthetic preparation given) in N-methylpyrrolidinone, to which was added a solution of 6-(methylsulfonyl)spiro-[2H-1-benzopyran-2,4'-piperidin]-4(3H)-one in THF to give 1'-{3-[5-chloro-2-(4-chlorophenyl)-1H-indol-3-yl]-1-oxopropyl}-6-(methylsulfonyl) spiro(2H-1-benzopyran-2,4'-piperidin)-4(3H)-one. compds. are of particular use in the treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia. Biol. data are given.

ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN L24

1995:420803 CAPLUS ΑN

DN

ΤI (Azaarylmethoxy) indoles as inhibitors of leukotriene biosynthesis

Frenette, Richard; Gillard, John W.; Hutchinson, John H.; Prasit, TN Petpiboon; Therien, Michel

PA Merck Frosst Canada, Inc., Can.

U.S., 16 pp. Cont.-in-part of U.S. Ser. No. 768,140, abandoned. SO CODEN: USXXAM

DT Patent

LΑ English

GI

FAN.	CNT 2					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 5389650	Α	19950214	US 1992-951635	19920925	
	CA 2079373	C	20030805	CA 1992-2079373	19920929	
	JP 07002840	A2	19950106	JP 1992-286644	19920930	
PRAI	US 1991-768140	B2	19910930	•		
os	MARPAT 123:55699					

Compds. having the formula I wherein: Het is ArR1R2; Ar is 2-, 3- or 4pyridyl; R1, R2, R3, and R4 are each hydrogen; R5 is X2R7; R6 and R9 are independently alkyl, alkenyl, (CH2)uPh(R10)2 or (CH2)uTh(R10)2 (Th = thienyl group); R7 is R6; R8 is R9; R10 is hydrogen or halogen; each R11 is independently hydrogen or lower alkyl, or two R11's on same carbon atom

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are joined to form a cycloalkyl ring of 3 to 6 carbon atoms; R12 is
     hydrogen, lower alkyl or CH2R21; R21 is Ph substituted with 1 or 2 R22
     groups; R22 is hydrogen, halogen, lower alkyl, lower alkoxy, lower
     alkylthio, lower alkylsulfonyl, lower alkylcarbonyl, CF3, CN, NO2 or N3; m is 0; n is 1 to 3; p is 0 to 3 when m is 0; u is 0 in R6 and 1 in R9; X2
     is CR11R11 or S; X4 is CH2Y1; Y1 is O; Q is CO2R12; or a pharmaceutically
     acceptable salt thereof, are inhibitors of leukotriene biosynthesis (no
     data). These compds. are useful as anti-asthmatic, anti-allergic, anti-
     inflammatory, and cytoprotective agents. They are also useful in
     treating diarrhea, hypertension, angina, platelet aggregation, cerebral
     spasm, premature labor, spontaneous abortion, dysmenorrhea, and migraine.
     Pharmaceutical formulations were given. Thus, e.g., 3-[1-(4-chlorobenzyl)-3-(t-butylthio)-5-methoxyindol-2-yl]-2,2-dimethylpropanoic acid Me ester
     was demethylated to 3-[1-(4-chlorobenzyl)-3-(t-butylthio)-5-hydroxyindol-2-
     yl]-2,2-dimethylpropanoic acid; the latter was converted to its allyl
     ester and reacted with 2-picolyl chloride to afford 3-[1-(4-chlorobenzyl)-
     3-(t-butylthio)-5-(pyridin-2-ylmethyoxy)indol-2-yl]-2,2-
     dimethylpropanoic acid allyl ester; saponification of the latter afforded title
     compound 3-[1-(4-chlorobenzyl)-3-(t-butylthio)-5-(pyridin
      -2-ylmethyoxy)indol-2-yl]-2,2-dimethylpropanoic acid.
L24 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
     1995:408389 CAPLUS
ΔN
DN
     123:143926
     Aryl-1H-thiopyrano[2,3,4-cd]indoles as inhibitors of leukotriene
     biosynthesis
     Girard, Yves; Hutchinson, John H.; Therien, Michel; Delorme, Daniel
     Merck Frosst Canada Inc., Can.
     PCT Int. Appl., 147 pp.
     CODEN: PIXXD2
     Patent
     English
FAN.CNT 1 ·
     PATENT NO.
                       KIND DATE
                                              APPLICATION NO. DATE
                                             WO 1993-CA478 19931109
     WO 9411378
                       A1 19940526
          \text{W:} \quad \text{AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, } \\
             MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ
          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
900 A 19940524 US 1992-978834 19921119
     US 5314900
                         A1 19940608
     AU 9454151
                                               AU 1994-54151
                                                                  19931109
PRAI US 1992-978834
                              19921119
     WO 1993-CA478
                              19931109
     MARPAT 123:143926
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
     The title compds. I (R1-R4 = H, alkyl, etc.; R5 = aryl, alkyl, etc.; R21,
     R22 = H, alkyl, etc.; A = phenylene, arylene; Q = carboxy, HO, amido, etc.; X = alkylene, etc.; Y = bond, O, S, amido, etc.; Z = CO, sulfonyl, bond, etc.; m, n, p = 0-3) were disclosed. I are useful as
     antiasthmatics, antiallergic, antiinflammatory, and cytoprotective agents
     (no claims). They are also useful in treating angina, cerebral spasm,
     glomerular nephritis, hepatitis, endotoxemia, psoriasis, uveitis, and
     allograft rejection and in preventing the formation of atherosclerotic
     plaques (no claims). An example compound, 3-[[[1-(4-chlorobenzyl)-4-methyl-
     6-(5-phenyl-2-pyridinyl)-4,5-dihydro-1H-thiopyrano-2,3,4-
     cd]indol-2-yl]methoxy]-2-naphthalenecarbocylic acid (II) was prepared
L24 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
     1995:362334 CAPLUS
AN
     122:133159
     Preparation of furo[3,2-b]pyridines and thieno[3,2-b]
     pyridines as inhibitors of leukotriene biosynthesis
     Leger, Serge; Hutchinson, John H.
     Merck Frosst Canada Inc., Can.
     PCT Int. Appl., 54 pp.
     CODEN: PIXXD2
     Patent
     English
FAN.CNT 1
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APPLICATION NO. DATE

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WO 1994-CA134
                                                                 19940310
PI
     WO 9422869
                        A1 19941013
         W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, LV, MG,
              MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
     US 5374635
                         Α
                              19941220
                                               US 1993-37862
                                                                  19930329
                              19941013
                                               CA 1994-2156262
                                                                 19940310
     CA 2156262
                         AA
                              19941024
                                               AU 1994-61787
     AU 9461787
                         Α1
                                                                  19940310
                              19971113
     AU 683451
                         B2
                                               EP 1994-908907
     EP 691972
                         A1
                              19960117
                                                                 19940310
                              19980701
     EP 691972
                         В1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     JP 08510723
                         T2
                              19961112
                                               JP 1994-521482
                                                                  19940310
                                               AT 1994-908907
                                                                  19940310
     AT 167865
                         E
                              19980715
     ES 2119176
                         Т3
                              19981001
                                               ES 1994-908907
                                                                 19940310
PRAI US 1993-37862
                              19930329
     WO 1994-CA134
                              19940310
OS
     MARPAT 122:133159
GI
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AB Title compds. I (R1, R2 = H, Cl; R5 = H, alky, alkyl-CO; Ar = furo[3,2-b] pyridin-5-yl, thieno[3,2-b]pyridin-5-yl, thieno[3,2-d]thiazol-2-yl) or a salt thereof, are prepared These compds. ar useful as anti-asthmatic, anti-allergic, anti-inflammatory, and cytoprotective agents. They are also useful in treating angina, cerebral spasm, glomerular nephritis, hepatitis, endotoxemia, uveitis, and allograft rejection and in preventing the formation of atherosclerotic plaques. 2-Iodo-6-methylpyridine-3-ol, CuI, trimethylsilylacetylene and (Ph3P)2PdCl2 in Et3N were refluxed for 20 h to give 2-(trimethylsislyl)-6-methylfuro[3,2-b]pyridine which in 4 steps was converted to I (R1 = R2 = R5 = H, Ar = furo[3,2-b]pyridin-5-yl) converted to the Na salt. Biol. activity was demonstrated. Pharmaceutical formulation comprising I are given.

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L24 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1994:457538 CAPLUS

DN 121:57538

TI Aryl thiopyrano(4,3,2-cd) indoles as inhibitors of leukotriene biosynthesis

IN Chung, John Y. L.; Reamer, Robert A.; Girard, Yves; Hamel, Pierre

PA Merck and Co., Inc., USA; Merck Frosst Canada, Inc.

SO Can. Pat. Appl., 60 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

GI

FAN.	CNT 1			
	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	CA 2099060	AA	19931230	CA 1993-2099060 19930623
	US 5314898	A	19940524	US 1992-906062 19920629
PRAI	US 1992-906062		19920629	
os	MARPAT 121:57538			•

L24

AB (Aryl)thiopyrano[4.3.2-cd]indoles as inhibitors of leukotriene biosynthesis. The title compds. I (R1-R4 = H, alkyl, etc.; R5 = aryl, alkyl; R21, R22 = substituent; Q = carboxy, formyl, amido, etc.; X = alkanediyl, etc.; Y = bond, S, O, etc.; Z = alkanediyl, methylene, CO) are inhibitors of the 5-lipoxygenase enzyme and inhibitors of leukotriene biosynthesis. These compds. are useful as antiasthmatic, antiallergic, antiinflammatory, and cytoprotective agents. They are also useful in treating angina, cerebral spasm, glomerular nephritis, hepatitis, endotoxemia, psoriasis, uveitis, and allograft rejection and in preventing the formation of atherosclerotic plaques. I are derivs. of chuangxinmycin. An example compound, 2-[2-[5-(4-chlorobenyzyl)-2-methyl-8-[(5-phenyl-2-pyridinyl)methoxy]-3,5-dihydro-2H-thiopyrano[4,3,2-cd]indol-4-yl]ethoxy]butanoic acid (II) was prepared

II

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AN
     1994:8477 CAPLUS
DN
     120:8477
      [(Azaheteroaryl)alkoxy]indoles as inhibitors of leukotriene biosynthesis
ΤI
TN
     Frenette, Richard
PA
     Merck Frosst Canada Inc., Can.
     PCT Int. Appl., 67 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                                APPLICATION NO.
                                                                  DATE
                              19930819
                                               WO 1993-CA59
                                                                  19930212
PI
     WO 9316069
                         A1
          W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, LK, MG, MN, MW, NO, NZ,
              PL, RO, RU, SD, SK, UA
          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                                               AU 1993-34886
                               19930903
                                                                   19930212
     AU 9334886
                         A1
PRAI US 1992-834918
                               19920213
     WO 1993-CA59
                               19930212
     MARPAT 120:8477
os
GI
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ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN '

$$\operatorname{GX4} \xrightarrow[R9]{R^6} \operatorname{CCR}_{2}^{12})_{n} \operatorname{Y}_{\mathfrak{m}} (\operatorname{CR}_{2}^{12})_{p} \operatorname{Q}$$

The title compds. I [G = (un)substituted aromatic 5- or 6-membered ring containing 1-3 N atoms or N-oxides; Q = (un)substituted CO2H, (un)substituted CONH2, 1H-tetrazol-5-yl, 2H-tetrazol-5-yl, etc.; R4,R5 = H, halogen, perhalo lower alkenyl, lower alkyl, lower alkenyl, lower alkynyl, CN, NO2, N3, etc.; R6 = H, Me, CF3, CHO, etc.; R9 = H, X3R10; R10 = alkyl, alkenyl, Ph-substituted alkyl, etc.; X3 = CO, CR122, SO2, direct bond; R12 = H, lower alkyl; CR12R12 = C3-6 cycloalkyl; X4 = (un)substituted alkenyl, etc.; Y = O, (un)substituted NH, CO, CR122, S, SO, SO2; m = 0, 1; n = 0, 3], useful as antiasthmatics (no data), antiallergics (no data), antiinflammatory agents (no data), and cytoprotective agents (no data), are prepared Thus, 3-[N-(p-chlorobenzyl)-3-(tert-butylthio)-5-[1-(pyridin-2-yl)-ethoxy]indol-2-yl]-2,2-dimethylpropanoic acid Na salt was prepared from 2-acetylpyridine in 3 steps.